

# Missouri Department of Natural Resources



## PUBLIC NOTICE

### DRAFT MISSOURI STATE OPERATING PERMIT

DATE: November 8, 2002

In accordance with the state Clean Water Law, Chapter 644, RSMo, Clean Water Commission regulation 10 CSR 20-6.010, and the federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements (see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years, unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources (MDNR), as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to the Department of Natural Resources, Water Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: Philip A. Schroeder, Permit Section Chief. Please include the permit number in all comment letters.

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The MDNR may not consider as relevant comments or objections to a permit based on issues outside the authority of the Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be postmarked by December 8, 2002 or received in our office by 5:00 p.m. on December 11, 2002. The requirement of a signed document makes it impossible to accept email comments for consideration at this time. Comments will be considered in the formulation of all final determinations regarding the applications. If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at DNR's website, <http://www.dnr.state.mo.us/wpscd/wpcp/homewpcp.htm>, or at the Department of Natural Resources, Water Pollution Control Program, 205 Jefferson Street, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

Public Notice Date: November 8, 2002

Permit Number: MO-0033502

Kansas City Regional Office

| FACILITY NAME AND ADDRESS                                  | NAME AND ADDRESS OF OWNER  |
|--|--|
| Bethany WWTF<br>31771 West 192 Avenue<br>Bethany, MO 64424 | City of Bethany<br>206 North 16 <sup>th</sup><br>PO Box 344<br>Bethany, MO 64424 |
| RECEIVING STREAM & LEGAL DESCRIPTION                       | TYPE OF DISCHARGE  |
| Big Creek, Sec. 16, T63N, R28W, Harrison County            | Domestic, reissuance   |

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0033502

Owner: City of Bethany  
Address: 206 North 16<sup>th</sup>, PO Box 344, Bethany, MO 64424

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Bethany Wastewater Treatment Facility  
Address: 31771 West 192 Avenue, Bethany, MO 64424

Legal Description: SE ¼, SW ¼, Sec. 16, T63N, R28W, Harrison County

Receiving Stream: Big Creek (P)  
First Classified Stream and ID: Big Creek (P)(00444)  
USGS Basin & Sub-watershed No.: (10280101-150008)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

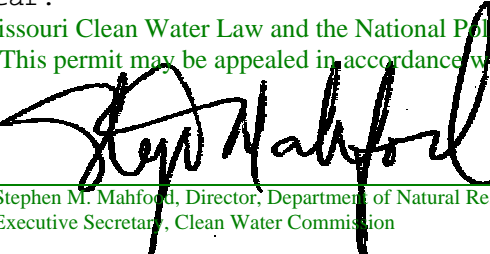
**FACILITY DESCRIPTION**

Outfall #001 - POTW - SIC #4952  
Extended aeration/aerobic digester/  
sludge is land applied.  
Design population equivalent is 7,780.  
Design flow is 0.778 MGD.  
Actual flow is 0.389 MGD.  
Design sludge production is 218 dry tons/year.  
Actual sludge production is 109 dry tons/year.

Outfall #002 - POTW - SIC #4952  
Single cell peak flow lagoon/sludge  
is retained in lagoon.  
Design flow is 0.176 MGD.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

December 27, 2002  
Effective Date

  
Stephen M. Mahford, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

December 26, 2007  
Expiration Date  
MO 780-0041 (10-93)

Jim Hull, Director of Staff, Clean Water Commission

| A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS  |       |                            |                   |                    | PAGE NUMBER 2 of 5       |                     |
|--|-------|----------------------------|-------------------|--------------------|--------------------------|---------------------|
|  |       |                            |                   |                    | PERMIT NUMBER MO-0033502 |                     |
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: |       |                            |                   |                    |                          |                     |
| OUTFALL NUMBER AND EFFLUENT<br>PARAMETER(S)  | UNITS | FINAL EFFLUENT LIMITATIONS |                   |                    | MONITORING REQUIREMENTS  |                     |
|  |       | DAILY<br>MAXIMUM           | WEEKLY<br>AVERAGE | MONTHLY<br>AVERAGE | MEASUREMENT<br>FREQUENCY | SAMPLE<br>TYPE      |
| <u>Outfall #001</u>  |       |                            |                   |                    |                          |                     |
| Flow   | MGD   | *                          |                   | *                  | once/weekday**           | 24 hr.<br>estimate  |
| Biochemical Oxygen Demand <sub>5</sub> ***   | mg/L  |                            | 45                | 30                 | once/month               | 24 hr.<br>composite |
| Total Suspended Solids***  | mg/L  |                            | 45                | 30                 | once/month               | 24 hr.<br>composite |
| pH - Units   | SU    | ****                       |                   | ****               | once/month               | grab                |
| Temperature  | °F    | *                          |                   | *                  | once/month               | grab                |
| Dissolved Oxygen   | mg/L  | *                          |                   | *                  | once/month               | grab                |
| Total Kjeldahl Nitrogen  | mg/L  | *                          |                   | *                  | once/month               | grab                |
| Nitrate & Nitrite as N   | mg/L  | *                          |                   | *                  | once/month               | grab                |
| Total Phosphorous  | mg/L  | *                          |                   | *                  | once/month               | grab                |
| Ammonia as N   | mg/L  | *                          |                   | *                  | once/month               | grab                |
| <u>Outfall #002 (Notes 1 &amp; 2)</u>  |       |                            |                   |                    |                          |                     |
| Flow   | MGD   | *                          |                   | *                  | once/day (Note 2)        | 24 hr.<br>estimate  |
| Biochemical Oxygen Demand <sub>5</sub> ***   | mg/L  |                            | 45                |                    | once/day (Note 2)        | grab                |
| Total Suspended Solids***  | mg/L  |                            | 45                |                    | once/day (Note 2)        | grab                |
| pH - Units   | SU    | ****                       |                   | ****               | once/day (Note 2)        | grab                |
| Temperature  | °F    | *                          |                   | *                  | once/day                 | grab                |
| Dissolved Oxygen   | mg/L  | *                          |                   | *                  | once/day                 | grab                |
| Total Kjeldahl Nitrogen  | mg/L  | *                          |                   | *                  | once/day                 | grab                |
| Nitrate & Nitrite as N   | mg/L  | *                          |                   | *                  | once/day                 | grab                |
| Total Phosphorous  | mg/L  | *                          |                   | *                  | once/day                 | grab                |
| Ammonia as N   | mg/L  | *                          |                   | *                  | once/day                 | grab                |
| MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE <u>February 28, 2003</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.  |       |                            |                   |                    |                          |                     |
| B. STANDARD CONDITIONS   |       |                            |                   |                    |                          |                     |
| IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.  |       |                            |                   |                    |                          |                     |

| <b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>   |       |                            |                   |                    | PAGE NUMBER 3 of 5       |                    |
|--|-------|----------------------------|-------------------|--------------------|--------------------------|--------------------|
|  |       |                            |                   |                    | PERMIT NUMBER MO-0033502 |                    |
| The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below: |       |                            |                   |                    |                          |                    |
| OUTFALL NUMBER AND EFFLUENT<br>PARAMETER(S)  | UNITS | FINAL EFFLUENT LIMITATIONS |                   |                    | MONITORING REQUIREMENTS  |                    |
|  |       | DAILY<br>MAXIMUM           | WEEKLY<br>AVERAGE | MONTHLY<br>AVERAGE | MEASUREMENT<br>FREQUENCY | SAMPLE<br>TYPE     |
| <u>In-Stream Monitoring</u> - The upstream site shall be located 300 feet upstream of Outfall #001 and the downstream site shall be located ¼ mile downstream of Outfall #001.   |       |                            |                   |                    |                          |                    |
| Flow   | MGD   | *                          |                   | *                  | once/month               | 24 hr.<br>estimate |
| Biochemical Oxygen Demand <sub>5</sub>   | mg/L  |                            |                   |                    | once/month               | grab               |
| pH - Units   | SU    | ****                       |                   | ****               | once/month               | grab               |
| Temperature  | °F    | *                          |                   | *                  | once/month               | grab               |
| Dissolved Oxygen*****  | mg/L  | *                          |                   | *                  | once/month               | grab               |
| Total Kjeldahl Nitrogen  | mg/L  | *                          |                   | *                  | once/month               | grab               |
| Nitrate & Nitrite as N   | mg/L  | *                          |                   | *                  | once/month               | grab               |
| Total Phosphorous  | mg/L  | *                          |                   | *                  | once/month               | grab               |
| Ammonia as N   | mg/L  | *                          |                   | *                  | once/month               | grab               |
| MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>February 28, 2003</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.  |       |                            |                   |                    |                          |                    |
| <b>B. STANDARD CONDITIONS</b>  |       |                            |                   |                    |                          |                    |
| IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I, II &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.  |       |                            |                   |                    |                          |                    |

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Once each weekday means: Monday, Tuesday, Wednesday, Thursday & Friday.
- \*\*\* This facility is required to meet a removal efficiency of 85% or more.
- \*\*\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- \*\*\*\*\* Monitor only during the months of May - October. Record before 9 a.m.

Note 1 - Wastewater flow may be diverted to the peak flow lagoon only when the influent to the plant exceeds the noncontinuous hydraulic capacity of the plant, during emergency maintenance activities. Immediately after the emergency, excess flow, or shutdown has discontinued, flow shall be restored through the mechanical plant.

Note 2 - Permittee shall collect and analyze at least one grab sample per day for every day a discharge occurs at Outfall #002. Report as no-discharge for Outfall #002 on each Discharge Monitoring Report when discharge does not occur for the reporting period.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (4) The level established in Part A of the permit by the Director.
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (e) There shall be no significant human health hazard from incidental contact with the water;
  - (f) There shall be no acute toxicity to livestock or wildlife watering;
  - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
  - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
  - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.



Missouri Department of Natural Resource  
Water Pollution Control Program  
Planning Section

Water Quality Review Sheet  
Determination of Effluent Limits

Facility Information

FACILITY NAME: Bethany WWTF NPDES #: MO0033502

FACILITY TYPE/DESCRIPTION: Minor 92-500, POTW/Outfall 001=extended aeration, aerobic digester, sludge is land applied; Outfall 002=single cell peak flow lagoon, sludge is retained in lagoon.

ECOREGION: Central Irregular Plains 8- DIGIT HUC: 10280101 COUNTY: Harrison  
Central Irregular Plains Osage Plains  
Mississippi Alluvial Plains Ozark Highlands

Outfall 001  
LEGAL DESCRIPTION: SE¼, SW¼, SW¼, Sec. 16, T63N, R28W LATITUDE/LONGITUDE (DMS): +4015173/-09403418

Outfall 002  
LEGAL DESCRIPTION: SW¼, SW¼, SW¼, Sec. 16, T63N, R28W LATITUDE/LONGITUDE (DMS): +4015119/-09403506

WATER QUALITY HISTORY: Stream survey conducted on 09/01/92. No apparent impact; discharge 0.3 cfs directly into Big Creek.  
WQIS-screen 10 shows enforcement tracking not completed for 3D other violation on 12/31/98 and a by-pass violation on 12/08/94.  
According to WQIS-screen 14, Outfall 001 had 3 BOD violations (on 10/99, 12/00, & 5/01) and 3 TSS violations (on 10/00, 12/00, 4/02). Outfall 002 had one flow violation (on 2/98), 2 pH violations (on 2/98 & 3/98), and 1 TSS violation (on 6/00).

Outfall Characteristics

| OUTFALL | DESIGN FLOW (CFS) | TREATMENT TYPE    | RECEIVING WATERBODY | OTHER |
|---------|-------------------|-------------------|---------------------|-------|
| 001     | 1.2059            | Extended Aeration | Big Creek           | N/A   |
| 002     | 0.2728            | Lagoon            | Big Creek           | N/A   |

Receiving Waterbody Information

| WATERBODY | CLASS | 7Q10(CFS) | *DESIGNATED USES | OTHER CHARACTERISTICS |
|-----------|-------|-----------|------------------|-----------------------|
| Big Creek | P     | 0.20      | LWW, AQL, DWS    | N/A                   |

\*Cool Water Fishery (CLF), Cold Water Fishery (CDF), Irrigation (IRR), Industrial (IND), Boating & Canoeing (BTG), Drinking Water Supply (DWS), Whole Body Contact Recreation (WBC), Protection of Warmwater Aquatic Life and Human Health (AQL), Livestock & Wildlife Watering (LWW)

COMMENTS: Big Creek had sediment contamination due to agriculture non-point source pollution.  
For streams in northern Missouri, drainage areas above 200 square miles have an estimated 7Q10 of 0.10 to 1.50 cfs per *Stream and Springflow Characteristics* (1976) page 57 part a.(2).  
The drainage area size at this facility is about 216 square miles within Missouri. Part of the drainage area extends into Iowa, which was not calculated.

MIXING CONSIDERATIONS

Mixing Zone.

Volume of  $\frac{1}{4}$  7Q10 flow =  $(\frac{1}{4}) * (0.20 \text{ cfs}) = 0.05 \text{ cfs}$  and length of  $\frac{1}{4}$  mile per 10 CSR 20-7.031(4)(A)5.B.(II)(a).

Zone of Initial Dilution (Z.I.D.).

One-tenth mixing zone volume of flow is  $(0.1) * (0.05 \text{ cfs}) = 0.005 \text{ cfs}$  per 10 CSR 20-7.031(4)(A)5.B.(II)(b).



## Permit Limits and Information

TMDL WATERSHED: ☐ N ☐ W.L.A. STUDY CONDUCTED: ☐ N\* ☐ DISINFECTION REQUIRED: ☐ N ☐ DISINFECTION WAIVER: ☐ N/A  
 (Y OR N) (Y OR N) (Y OR N) (Y, N, NA)

\* A Waste Load Allocation (WLA) study is scheduled to be completed summer 2003

### OUTFALL#001

WET TEST (Y OR N): ☐ Y FREQUENCY: ONCE/YEAR A.E.C. 100% LIMIT: 10 CSR 20-7.031(3)(I)

| PARAMETER***                                  | MAXIMUM<br>DAILY LIMIT | AVERAGE<br>WEEKLY LIMIT | AVERAGE<br>MONTHLY LIMIT | MONITORING<br>FREQUENCY | SAMPLE<br>TYPE     |
|---|------------------------|-------------------------|--------------------------|-------------------------|--------------------|
| Flow (MGD)                                    | *                      |                         | *                        | Once/Weekday            | 24 hr.<br>estimate |
| Biochemical Oxygen Demand (mg/L)              |                        | 45                      | 30                       | Once/Month              | Grab               |
| Total Suspended Solids (mg/L)                 |                        | 45                      | 30                       | Once/Month              | Grab               |
| pH - Units (SU)                               | **                     |                         | **                       | Once/Month              | Grab               |
| Temperature (°F)                              | *                      |                         | *                        | Once/Month              | Grab               |
| Dissolved Oxygen (mg/L)                       | *                      |                         |                          | Once/Month              | Grab               |
| Total Kjeldahl Nitrogen (mg/L)                | *                      |                         | *                        | Once/Month              | grab               |
| NO <sub>2</sub> + NO <sub>3</sub> as N (mg/L) | *                      |                         | *                        | Once/Month              | grab               |
| Total Phosphorous (mg/L)                      | *                      |                         | *                        | Once/Month              | grab               |
| Ammonia as N (mg/L) (note 1)                  | *                      |                         | *                        | Once/Month              | grab               |

### OUTFALL#002

WET TEST (Y OR N): ☐ N FREQUENCY: N/A A.E.C. N/A LIMIT: N/A

| PARAMETER***                                  | MAXIMUM<br>DAILY LIMIT | AVERAGE<br>WEEKLY LIMIT | AVERAGE<br>MONTHLY LIMIT | MONITORING<br>FREQUENCY | SAMPLE<br>TYPE     |
|---|------------------------|-------------------------|--------------------------|-------------------------|--------------------|
| Flow (MGD)                                    | *                      |                         | *                        | Once/Day****            | 24 hr.<br>estimate |
| Biochemical Oxygen Demand (mg/L)              |                        | 45                      |                          | Once/Day****            | Grab               |
| Total Suspended Solids (mg/L)                 |                        | 45                      |                          | Once/Day****            | Grab               |
| pH - Units (SU)                               | **                     |                         | **                       | Once/Day****            | Grab               |
| Temperature (°F)                              | *                      |                         | *                        | Once/Day****            | Grab               |
| Dissolved Oxygen (mg/L)                       | *                      |                         | *                        | Once/Day****            | Grab               |
| Total Kjeldahl Nitrogen (mg/L)                | *                      |                         | *                        | Once/Day****            | grab               |
| NO <sub>2</sub> + NO <sub>3</sub> as N (mg/L) | *                      |                         | *                        | Once/Day****            | grab               |
| Total Phosphorous (mg/L)                      | *                      |                         | *                        | Once/Day****            | grab               |
| Ammonia as N (mg/L) (note 1)                  | *                      |                         | *                        | Once/Day****            | grab               |

\* Monitoring requirement only

\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

\*\*\* A Waste Load Allocation (WLA) study is scheduled to be completed summer 2003, which may or may not change the limits. If the WLA finds these limits are not protective of the stream's water quality, the permit will be reopened to reduce the limits and/or establish limits for monitoring only requirements.

\*\*\*\* Permittee shall collect and analyze at least one grab sample per day for every day a discharge occurs at Outfall #002.

## Receiving Water Monitoring Requirements

### Site US1. Upstream Big Creek

| PARAMETER(S)                           | SAMPLING FREQUENCY | SAMPLE TYPE | LOCATION  |
|--|--------------------|-------------|---|
| Flow                                   | Once/Month         | Grab        | Upstream of Outfall #001<br><br>LatDD: +40.25568<br>LongDD: -94.06112 |
| Biochemical Oxygen Demand              | Once/Month         | Grab        |   |
| pH                                     | Once/Month         | Grab        |   |
| Temperature                            | Once/Month         | Grab        |   |
| Dissolved Oxygen                       | Once/Month         | Grab        |   |
| Total Nitrogen                         | Once/Month         | Grab        |   |
| NO <sub>2</sub> + NO <sub>3</sub> as N | Once/Month         | Grab        |   |
| Total Phosphorous                      | Once/Month         | Grab        |   |
| Ammonia as N                           | Once/Month         | Grab        |   |

**Site DS2. Downstream Big Creek**

| PARAMETER(S)              | SAMPLING FREQUENCY | SAMPLE TYPE | LOCATION  |
|---------------------------|--------------------|-------------|---|
| Flow                      | Once/Month         | Grab        | ¼ mile downstream from<br>Outfall #002<br><br>LatDD: +40.25429<br>LongDD: -94.06917 |
| Biochemical Oxygen Demand | Once/Month         | Grab        |   |
| pH                        | Once/Month         | Grab        |   |
| Temperature               | Once/Month         | Grab        |   |
| Dissolved Oxygen          | Once/Month         | Grab        |   |
| Total Nitrogen            | Once/Month         | Grab        |   |
| NO2 + NO3 as N            | Once/Month         | Grab        |   |
| Total Phosphorous         | Once/Month         | Grab        |   |
| Ammonia as N              | Once/Month         | Grab        |   |

**Derivation and Discussion of Limits****Outfall 001:**

- **Biochemical Oxygen Demand (BOD<sub>5</sub>)**. Criterion: 30 mg/L monthly average, 45 mg/L weekly average from 10 CSR 20-7.015(8)(B)1.
- **Total Suspended Solids**. Criterion: 30 mg/L monthly average, 45 mg/L weekly average from 10 CSR 20-7.015(8)(B)1.
- **pH**. Criterion: between 6.0 - 9.0 standard units from 10 CSR 20-7.015(8)(B)2.

**Outfall 002:**

- **Biochemical Oxygen Demand (BOD<sub>5</sub>)**. Criterion: 45 mg/L weekly average from 10 CSR 20-7.015(8)(B)3.E.(I)
- **Total Suspended Solids**. Criterion: 45 mg/L weekly average from 10 CSR 20-7.015(8)(B)3.E.(I)
- **pH**. Criterion: between 6.0 - 9.0 standard units from 10 CSR 20-7.015(8)(B)3.E.(II)

Note 1. Ammonia-Nitrogen limits have a monitoring only requirement currently. The waste load allocation study is scheduled for summer 2003. If the WLA finds the monitoring only requirement not protective of the stream's water quality, the permit will be reopened to establish limits for ammonia-nitrogen.

Reviewer: Stacia Bax

Date: 06/18/02; revised 09/20/2002 & 09/23/2002

Unit Chief: Mohsen Dkhili

## Receiving Water Monitoring Locations

